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**Combined Arms Brigades in
AirLand Operations**

**A Monograph
by**

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Aviation**

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ABSTRACT

THE AIRLAND OPERATIONS APPLICATION OF COMBINED ARMS BRIGADES AT THE OPERATIONAL LEVEL OF WAR by Major William M. Jacobs, USA 40 pages.

The purpose of this paper is to analyze the viability of combined arms brigade employment in AirLand Operations. As criteria, the study imposes the Operational Operating Systems (OOS) contained in the April 15, 1990 TRADOC Pam 11-9, Army Programs BLUEPRINT OF THE BATTLEFIELD to determine whether or not brigades can be employed directly under corps auspices to achieve operational resolution. Secondly, the study reviews AirLand Battle doctrine and future concepts as the precursors to AirLand Operations.

Next, the study analyzes two examples of modern warfare that demonstrate the resolution of operational effects through the employment of combined arms brigades. OPERATION CRUSADER and the FALKLANDS CAMPAIGN both provide excellent material for operational study of combined arms brigade employment. Integrated into the historical text are theoretical concepts of Fuller, Trilandafillov, Tukhachevskiy, and Guderian.

The study also analyzes the combined arms brigade for its potential to operate and sustain under corps control in campaigns and major operations. The significance of the problem focuses on future global interests of the United States, which provide the strategic impetus for the Army's requirement to field deployable CUNUS-based forces in response to world-wide crises in the power projection role.

This study concludes that the combined arms brigade, which consists of a full complement of tailorable combat arms, artillery, combat support and combat service support, best prepares us for the preponderance of known conditions of future nonlinear AirLand Operations warfare. The findings of this proposal are also supportable from both a historical and theoretical perspective, and one that cannot technically be currently replicated by our adversaries. In this regard, a compelling case has been made for the employment of the combined arms brigade as it provides the best transition to the AirLand Operations of the future. Additionally, it is the most logical and economical application of massed combat power now at the disposal of the corps commander. When augmented with operational intelligence and fires assets, and in all other aspects of the Operational Operating Systems, combined arms brigades are fully capable functioning at the operational level across the spectrum of conflict.

The nation's military strategy has changed -- "the Army's primary mission is now one of power projection." The recent experiences in operations URGENT FURY, JUST CAUSE, and DESERT STORM provide ample evidence that our global responsibilities in the future will transcend the operational continuum. Advances in strategic lift coupled with the corps' enhanced technological capability to influence the battlefield through the employment of combined arms brigades, will provide the AirLand Operations a base for a "disciplined evolution" towards a strategic Army that is fully capable of conducting operational maneuver as a power projection force in the roles of warfighting, national assistance and peacetime engagement.



Combined Arms Brigades in AirLand Operations

A Monograph by

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COMBINED ARMS BRIGADES IN AIRLAND OPERATIONS

CHAPTER 1. INTRODUCTION

The US Army has been historically unprepared to win the first battle. Now, it must be prepared to fight outnumbered and win - The first battle could be the last battle.¹⁻¹

The purpose of this paper is to analyze the viability of combined arms brigades under corps auspices as the operational link to future nonlinear warfare.¹⁻² Massing of committed combined arms brigades at the precise time and place to fight the decisive battle is basic to the force oriented AirLand Operations concept.¹⁻³ As the brigade becomes more self-sufficient, particularly in logistics because of an organic forward support battalion (FSB), the division relative to the corps takes on an "unweighted"¹⁻⁴ quality and is relegated to a C2 and logistics role. In AirLand Operations, the corps' direct relationship to the brigades is the key that establishes the gridwork for maneuver forces to plug into.¹⁻⁵ Hence, the relationship between corps and brigade becomes much more significant as the new paradigm in AirLand Operations while the division takes on more of a support role.

Criteria for this thesis are extrapolated from the Operational Operating Systems (OOS) contained in the 5 April 1990 TRADOC Pamphlet 11-9, Army Programs BLUEPRINT OF THE BATTLEFIELD, to assess the combined arms brigades' capability to conduct warfare at the operational level. TRADOC Pam 11-9 discusses the Operational Level of War in terms centered around six operating systems: Operational movement and maneuver, operational fires, operational protection, operational command and control, operational intelligence, and operational support. This study also imposes these systems as criteria to determine to what extent combined arms brigades will require augmentation to achieve operational art. To be valid, the concept must be applicable across the entire operational continuum in combat, combat support, and combat service support roles.

The combined arms brigade concept inherent in AirLand Operations¹⁻⁶ is central to the the new paradigm that envisions the smallest unit possible in nonlinear warfare at the operational level. Included also is an overview of AirLand Battle doctrine in order to link AirLand Operations concepts to its

origins. To capture further the lessons of the past which pertain to present AirLand Operations, the study analyzes two examples of modern warfare for their value as models which manifest operational resolution through the employment of combined arms brigades.

OPERATION CRUSADER is cited first and provides excellent material for study where specially tailored combined arms brigades were operationally employed. Lending support to the viability of this approach is the fact that recently Americans, French, and Germans have adopted similar employment techniques using the brigade as the ideal maneuver element in place of divisions.¹⁻⁷ The Falklands Campaign also provides a supporting example of independent brigade employment at the operational level of war. Both cases illustrate the value of autonomous and combined arms brigade employment under the direction of corps as a model for future operational nonlinear warfare.

Integrated throughout the Chapter 4 historical text are theoretical concepts from Fuller, Triandafillov, Tukhachevskiy, and Guderian. J.F.C. Fuller provides a concept for the operational employment of armored reconnaissance, tanks, artillery, and aircraft working in concert as a mobile strike force. In 1929, V.K. Triandafillov studied the contemporary state of military technology and organizations in an attempt to predict the future of war. Additionally, he provides the genesis upon which Soviet operational art is predicated based on the use of combined arms - tanks, artillery, and aviation. Mikhail N. Tukhachevskiy postulated in 1936 that armored combat, using brigades and divisions, would encompass battle and enable penetrations of unprecedented operational depth and tempo. As early as 1937, Heinz Guderian understood that "older arms" (infantry and artillery) could not accompany armor when attempting to achieve operational depths. As a solution, he encouraged the older arms to become "acquainted with their younger relatives"¹⁻⁸ in order to create the inherent synergistic effects of true combined arms formations.

Combined arms synergism advocated by Guderian is today recognized by AirLand Operations which call for combat ready and sustainable brigades that are capable of operating across the operational continuum, yet satisfy future

budget constraints. The utility of combined arms brigades as the primary means of corps prosecution of operational warfare is emerging as the means by which the corps can achieve operational art in the nonlinear environment.¹⁻⁹

Prior to the emergence of AirLand Operations, the division was the lowest level at which combat, combat support, and combat service support units were integrated. However, the future role of the division as a functioning command and control headquarters is currently a controversial topic and merits discussion. The division role of providing C2 and logistics will change as brigades are formed with forward support battalions that provide a self-sustaining quality and a degree of independence to the maneuver brigades. AirLand Operations analysis indicates that the mixing of arms and support must be accomplished at a lower echelon such as at the brigade level. In this respect, the employment of combined arms brigades is not a new idea as combined arms task forces were successfully employed in World War II and in the Falkland Islands.

The significance for the future lies in the global interests of the United States, and provides the strategic impetus for the Army's requirement to field deployable CONUS-based forces in response to world-wide crises. This power projection concept¹⁻¹⁰ represents a departure from the past which previously entailed regional forward deployed forces in pursuit of national policies.

Finally, if CONUS-based brigades are determined to be capable of achieving the desired purpose of AirLand Operations, then the Army is going to look decidedly different in the coming years. In this context, the value of a large standing army is being questioned and will probably result in cuts of approximately 25 percent. Moreover, the Army has just demonstrated by its role as part of the joint and combined arms team, that it could defeat the world's fourth largest military force without the need to engage in a costly ground battle. This further complicates future force structure requirements in light of the US qualitative and technological edge that seems to overcome mere quantity in our adversaries. The problem then becomes one of adequately evaluating the combined arms brigade as the unit around which we build our new power projection Army in AirLand Operations.

CHAPTER 2. CRITERIA: THE OPERATIONAL OPERATING SYSTEMS

THE BLUEPRINT OF THE BATTLEFIELD

The criteria for this study are comprised of the Operational Operating Systems (OOS) which are extrapolated from TRADOC Pam 11-9, Army Programs BLUEPRINT OF THE BATTLEFIELD. A discussion of the Operational Level of War and its six operational operating systems (OOS) sets the stage for subsequent discussions of combined arms brigade employment in AirLand Operations and provides the criteria to assess the viability of combined arms brigade employment at the operational level of war.

The OOS are imposed as the criteria through which to determine whether or not brigades can be employed under corps auspices to achieve operational art in a nonlinear environment. Additionally, the combined arms brigade is assessed for its ability to perform across the operational continuum, in the combat, combat support, and combat service support roles.²⁻¹ The Operational Operating Systems include operational movement and maneuver, operational fires, operational protection, operational command control, operational intelligence, and operational support. The OOS, which have counterparts at the strategic level (Strategic Operating Systems), and at the tactical level (Battlefield Operating Systems), are defined as the major functions performed by operational forces in a theater war and are sufficiently comprehensive in nature to address three-dimensional AirLand Operations.

The concept of the 'Blueprint of the Battlefield' as introduced in TRADOC Pam 11-9 is a "comprehensive hierarchical"²⁻² listing of Army battlefield functions and their definitions as they relate to each level of war - strategic, operational, and tactical. This concept serves as an excellent analytical tool to determine through the OOS what value the combined arms brigade has for the prosecution of AirLand Battle Future at the operational level. The operational level is defined as:

...the level of war at which campaigns and major operations are planned, conducted, and sustained to accomplish strategic objectives within theaters or areas of operations. Further, activities at this level link tactics and strategy by establishing operational objectives (needed to accomplish the strategic objectives), sequencing events to achieve the operational objectives, initiating actions, and applying the resources to bring about and sustain these events. These activities imply a broader dimension of time or space than do tactics; they ensure the logistic and administrative support of tactical forces, and provide the means by which tactical successes are exploited to achieve strategic objectives.²⁻³

The Operational Operating Systems are organized by functions because functions produce a more efficient structure than do constructs such as missions or operations. The operational operating systems succinctly describe what must take place for successful battle and are inherently inclusive of all tasks and subtasks that must be accomplished. For example, the Army's doctrinal literature is often organized around offensive operations such as a movement to contact, frontal attack, and exploitation or defensive missions such as defend in sector, defend a battle position, defend a strong point, and delay.²⁻⁴ These operational constructs simply do not lend themselves to coherent and systematic analysis because there is so much inherent crossover and similarity; exclusivity and uniqueness are deficient. In considering each of the constructs above, evidence of commonality such as tactical and administrative movement, acquiring and engaging targets make for difficult analytical study. Whereas, the Operational Operating systems (OOS) by their very nature take on the requisite and distinct characteristics for empirical analysis.

The straightforward advantages of this process allow for a catalog of evidence to accrue in assessing the battlefield functions of a combined arms brigade into "logical -- not procedural relationships."²⁻⁵ Consequently, by examining distinct and mutually exclusive battlefield functions versus conditional variables, the OOS more clearly denote what is of critical value to the study of combined arms brigades at the operational level of war. A thorough knowledge of the OOS also helps us more clearly understand the evolutionary doctrinal process that began with the Active Defense which has since resulted in our current power projection concept in AirLand Operations.

CHAPTER 3. AIRLAND OPERATIONS: THE EVOLUTION OF AIRLAND BATTLE FOR A STRATEGIC ARMY

General 'Light Horse' Harry Lee of Revolutionary War fame clearly captured our responsibility for education when he cautioned that a government is the murderer of its own citizens when it sends them into the field untrained and untaught.³⁻¹ The study of AirLand Operations provides a way for us to design the future up front and then train for it as we progress. AirLand Operations is an evolutionary transition from a forward defense and presence focus to one

of power projection and deployability into the next century. It also portends increased integration of joint and combined operations as a natural byproduct of the transition while describing how the combined arms brigade will be integrated as the foundation upon which to build operational forces.

During the transition to AirLand Operations, we must keep in mind the very essence of our business is to train to fight without prior notice anywhere in the world against any foe or adversarial coalition. Douglas MacArthur reminded us that in no other profession are the penalties for employing untrained personnel so appalling or so irrevocable as in the Army.³⁻² Training should focus the minds of officers at every level to think faster and act faster than the enemy: to act so to make the enemy react.³⁻³ Further, although our leaders are not warmongers, they must also understand from their training that wars are begun in the political realm.³⁻⁴ I believe this very basic understanding to be the precursor to operational artistry. Based on a solid political and strategic picture, a true operational artist is then able set terms which elicit mere tactical enemy responses that can be translated into decisive operational victories.

The importance of setting the terms of battle is based on seizing the initiative; a fact that is borne out through the historical study of war. One must appreciate, however, that seizing the initiative means setting terms, but not necessarily by attacking first. There are frequently times in combat when the interests of the defender may be in holding back to conserve strength, or even losing a given battle in order to live to fight another day at the point of one's choosing.³⁻⁵ Holding back does not necessarily imply that the initiative has been ceded. Combined arms brigades are much more optimally-sized, and therefore provide inherent flexibility and agility to make operational decisions less cumbersome than at division level or higher.

The choice to give battle in the future must be carefully considered to reflect the more global nature of our interests, the strategic requirements for the army, the need for power projection using tailored deployable forces in place of forward presence forces, the expanding reality of challenges across the operational continuum, and the trends in technology and budget.³⁻⁶ The evolution of AirLand Operations also provides a prudent means to examine the

adequacy of existing doctrine and its implications across the domains of training, organization, materiel, and leader development as we transition to the next century of warfighting.

We must remember that our peacetime approach to preparation for the next century makes a great deal of difference toward how the U.S. Army mobilizes for war, fights its first battle, and subsequently adapts to the exigencies of conflict.³⁻⁷ In preparing for the future we must exploit the use of combined arms brigades - supported by air, artillery, and electronic warfare - as the corps commander's principal tools for maneuver warfare.

A vision of future battle must first be established to plan adequately for equipment and doctrine changes in order to field combined arms brigades. Planners today foresee a nonlinear battlefield dominated by dispersed, highly mobile, self-contained units maneuvering to decisive points revealed by accurate sensor technology.³⁻⁸ General John Foss cites the definition of the nonlinear battlefield as a battlefield upon which the commander, either by choice or lack of maneuver forces to cover all the terrain, has placed his forces in dispersed, noncontiguous areas from which he can operate to destroy enemy forces within his area of operations. Linear warfare is roughly analogous to US football - attacking and defending sides on either side of a definitive line. Nonlinear warfare is more comparable to soccer where constant offensive and defensive activity is ongoing continuously.³⁻⁹ Each side may rapidly coalesce into temporary attack or defensive groups and then disperse to fight again over broad distances.

From a linear perspective, frontal distances varied from 10 to 30+ kilometers for the division commander, and out to 75-150 kilometers and beyond for the corps commander.³⁻¹⁰ In the nonlinear environment, these distances can extend even farther and take on a totally different perspective (depth or breadth) as continuity across lines of communication is intermittent and precarious. AirLand Operations foresees distances out to 350 kilometers and beyond for the corps deep battle by the year 2000.

Nonlinear operations by their very nature focus on the enemy force - not terrain - and are further characterized by worldwide offensive and defensive application, more danger at the operational level, and increased difficulty at

the tactical level. Nonlinear operations are comprised of forces that are dispersed and not locked into a line of contact with the enemy. This enables forces to move and mass combat power quickly; fight violent short battles to destroy the enemy; and then disperse to fight again.³⁻¹¹ Flexibility is inherent in nonlinear operations and allows the commander to gain the initiative through offensive action to force the pace of battle and to bring overwhelming force to bear at the time and place the enemy is most vulnerable.

As we structure the force for nonlinear warfare in the next decade, the US Army will bear little resemblance to the force of 40 years ago. Indeed, as we have witnessed in a year of great challenge, the Army of the 1990s is the finest fighting force this nation has ever fielded and the best in the world today.³⁻¹² This point was not arrived at by accident. As Lieutenant General (Retired) Cushman opined, "Doctrine is an enlightened exposition of what has usually worked best."³⁻¹³ In this regard, our concepts, doctrine and force structure have served us well as evidenced by the Army's recent performance in DESERT STORM. However, we cannot rest on our laurels as preparation for AirLand Operations must continue to address future challenges without interrupting readiness.

From a preparation perspective, the "100 Day War" represents only the third time in our history that we have entered a battle prepared in advance. Previously there have been two other occasions, World War II and the beginning of Vietnam (the 1st Cavalry Division at Ia Drang).³⁻¹⁴ Of these three examples, DESERT STORM stands out as an example of an Army that appeared prepared in all facets of operational warfare from start to finish.

THE PRECURSORS TO AIRLAND OPERATIONS CONCEPTS

During the period since the victory at the end of World War II and the perceived failure at the end of Vietnam, a well spring of escapades has taken place in search of a coherent doctrine. The end result was AirLand Battle: "a conservative doctrine that emphasizes the timeless principles of war conveyed in the writings of the classical military strategists."³⁻¹⁵ ALB, originally crafted around the defense of Europe and Fulda Gap mentality, was sufficiently general in nature and scope yet could be imaginatively applied to a "plethora of military conflicts and contingencies."³⁻¹⁶ ALB, first introduced

in the 1976 edition of FM 100-5, is an evolutionary product of the Active Defense which has since spawned AirLand Battle Future and, more recently, AirLand Operations.³⁻¹⁷ Further revised in 1982 and again in 1986, ALB doctrine is based on the tenets of depth, initiative, agility, and synchronization, and remains basically sound in principle although it is constantly evolving to accommodate global and regional dynamics.

AirLand Operations is the follow-on conceptual derivative of ALB doctrine which addresses more complex political, economic, and social changes while introducing new technology to a smaller force. As the force structure becomes increasingly more austere, AirLand Operations technology seeks to preserve combat power³⁻¹⁹ through four stages of battle. These stages are entitled sensor/acquisition, establishing conditions for decisive maneuver, and reconstitution.³⁻²⁰ The nonlinear aspect of AirLand Operations has an offensive orientation, and requires rapid decision making and strong command and control systems.³⁻²¹

AirLand Operations attempts to reverse the historical trend that allows technology to drive doctrine. Instead, the US Army conceptually looks to the future as a guide to the development of doctrine, equipment, organizations, training, leader development, logistics, and joint operations.³⁻²² AirLand Operations provides commanders the opportunity to balance risk in one area in order to mass at the decisive place and time with increased range and lethality of weapons. Commanders at all levels will operate more independently and have more opportunities to apply initiative as well as physical and mental agility. Independent operations require that the lowest level of combined arms, combat support and logistics be tailored at the brigade level for optimal C2 and strategic deployability using finite sea and air lift assets.

AirLand Operations will continue to prepare us for the era of an "Army in Transition"³⁻²³ further tempered by austere fiscal policy which also drives force structure to a lower threshold. Before the transition, the Army of Excellence decade of the eighties caused the pendulum to swing too severely towards austerity resulting in organizations that were too resource-constrained. This paucity of combat power caused unfulfilled expectations which AirLand Operations purports to fix by striking a balance

between warfighting requirements and resources in preparation for the next century. Moreover, preparations must be continued beyond the year 2000 for new strategically oriented missions based on worldwide land power projection in support of our national interests.

Regarding our national interests, Army Chief of Staff General Carl Vuono pointed to the Army strategic force imperatives which called for tailorable forces, deployability, long range fires, global intelligence, responsive command and control, manpower enhancements, and non-combat capabilities.³⁻²⁴ These imperatives will also improve our peacetime deterrent capabilities and preemptive strike capabilities during conflict. One imperative - deployability - is of particular interest as it is the one thing that appears to give us the edge in any regional conflict. Our ability to deploy strategically to conduct operational warfare is complemented by combined arms brigade employment, and is one of our nation's greatest military strengths - "If we can't get there we are irrelevant."³⁻²⁵

AIRLAND OPERATIONS AS AN OPERATIONAL CONCEPT

The operational level occupies a prominent position in the 1986 edition of FM 100-5, and much of the manual looks at how to sequence and sustain battles in order to win campaigns. Significantly, both the 1982 and 1986 editions of FM 100-5, Operations, returned offensive spirit to a position of new prominence which served to boost perceptions of the Army's capabilities. For example, FM 100-5, Chapter 8, page 1 reads: "The offense is the decisive form of war." The wave of optimism and faith in the spirit of the offense that swept the Army was reminiscent of the French when its 1913 publication of the Army Regulation for the Conduct of Major Formations stated: "the French Army, returning to its traditions, recognizes no law save that of the offense."³⁻²⁶ Similarly, but in a more balanced approach, US Army doctrine tempers its offensive spirit with defensive doctrine and force protection measures as well.

Offensive orientation on the enemy in nonlinear operations must also take full advantage of emerging technology and the expected lower density of forces on the future battlefield. Technology uses sensors rather than forces to locate, identify, and track the enemy. Rapid reconnaissance forces provide the

vital link between sensors and the fires and maneuver attack forces. Then, attack formations with massed, long range, lethal fires follow up with fast, agile combined arms teams to destroy the enemy.

To validate AirLand Operations, a series of force-on-force analytical studies and wargames have been ongoing within TRADOC since the summer of 1987. This past year has featured intensified wargaming and analyses using the four stages of AirLand Operations to examine alternative warfighting concepts incorporating implications of dynamic and companion trends.³⁻²⁷ The studies were conducted at the operational level and produced several significant insights from the more open battlefield that envision combat operations in four overlapping and continuous stages: Detection and Preparation, Setting the Conditions for Decisive Maneuver, Decisive Maneuver, and Reconstitution.

The detection and preparation phase encompasses those activities designed to protect the force, prepare the battlefield, and to decide how, when and where we want to fight. Detection and preparation includes intelligence activities from the national to the tactical level which the corps commander can use to detect and track enemy formations as far as 400 kilometers forward and beyond.³⁻²⁸ Intelligence collection is always a joint and often a combined effort. The collection process includes planning for security, organizational, and logistical activities necessary to protect the forces and to prepare them for combat operations.³⁻²⁹

Before deployment into theater, the operational commander has received all available intelligence and as much campaign planning and mission guidance as is available. Concurrently, he will conduct detailed IPB and early deployment of his own intelligence and security forces into the detection zone and establish links to joint and allied intelligence systems.³⁻³⁰ He is seeking the level of detail and reliability necessary to form a picture of enemy disposition, capabilities, and intent, so that he may refine and issue his operational plan to supporting forces.

The land commander establishes a reconnaissance/surveillance combined arms force comprised of armed aerial reconnaissance, long-range surveillance units (LRSU), cavalry scouts and, if appropriate, light infantry and engineers.

All of these forces must be supported by indirect fire.³⁻³¹ These multi-disciplined and multi-echeloned reconnaissance, intelligence, surveillance and target acquisition (RISTA) assets integrate with national and theater systems thus allowing the commander to focus on his primary intelligence requirements.

Reconnaissance/surveillance units are employed to minimize risk. The commander relies heavily on aerial and electronic reconnaissance forces to cover the wide zone and, if necessary, place lethal fires against enemy reconnaissance and forward detachments. The primary mission of this combined arms reconnaissance force is to secure the force, confirm sensor intelligence, and to verify and target enemy forces. The reconnaissance force attempts to foil the enemy's deception operations. Although this force contains combat power to conduct counterreconnaissance screening operations, it should not become decisively engaged.

Stage II establishes conditions for decisive maneuver. Operational fires are employed across the joint and combined arms arena to enable the commander to gain and maintain the initiative. This stage envisions lethal fires using smart and brilliant munitions that could conceivably force the capitulation of the enemy even prior to the introduction of decisive ground maneuver forces. Concentration of long-range fires from tactical air, multiple rocket launchers, and attack helicopters³⁻³² will significantly reduce the enemy's numbers and disrupt his time and space battlefield calculus to break up his momentum.

Upon confirmation of favorable conditions, Stage III (Decisive Maneuver) operations commence with fires that continue as necessary throughout the maneuver phase. Stage III focuses on culminating the effort of previous stages with tactical and operational decisions that support the campaign plan. The intent of this is to attack selectively only those elements of enemy strengths necessary for decision and to avoid or minimize mutual attrition battles.³⁻³³ Key to this stage as part of a continuing operation, is the allocation of appropriate intelligence/security forces and fires to ensure success while initiating planning, collection, targeting, and attack activities necessary for subsequent and contingency operations.

Maneuver forces are initially dispersed out of range of the majority of enemy indirect fire systems. Distance between units and individual systems is maximized to reduce signatures and decrease vulnerability to detection or attack by enemy long-range assets. The corps commander commits his maneuver forces optimally timed to the enemy's most vulnerable condition when he can be decisively defeated. The decision to initiate maneuver must be anticipated and initiated during Stage II and timed to the achievement of planned conditions.

Maneuver units are given the missions to attack, destroy, exploit or pursue the designated enemy force.³⁻³⁴ Some units may conduct tactical defensive operations to assist the operational maneuver force. The corps commander can also commit his attack helicopter forces to destroy enemy forces well forward, or he can employ them as supporting fires to destroy major enemy formations directly in the path of ground maneuver forces. Regardless, the corps commander quickly tailors his force to ensure he has overwhelming combat power at the critical time and place. While the objective remains operational maneuver, there are times, particularly at tactical levels, when elements of the force will have to fight linear battles for short periods. At the brigade level, some close combat actions may be temporarily required to provide the fulcrum of operational maneuver of the bulk of the forces.

Operational combat service support (CSS) occurs in Stage IV, Reconstitution. Having depleted some part of the operational force in Stage III, the commander must then reconstitute. The first action upon completion of a decisive operation, will be to redisperse the force, establish security, and initiate reconstitution. The purpose of Stage IV is to replenish the force as nearly as possible to its original capability in preparation for branch or sequel employment. CSS operations for committed forces in the nonlinear battlefield will usually appear as brigade-sized supported islands connected by main supply routes to the main logistics area.³⁻³⁵ Committed brigade-sized forces in a nonlinear environment will certainly be in need of all the logistics support that can possibly be made available. Two historical campaigns, OPERATION CRUSADER and the Falkland Islands Campaign, stand out as examples that attest to the value of independent and combined arms brigade operations, but also clearly highlight the immense logistics challenges that must be overcome.

CHAPTER 4. THE RELATIONSHIP OF HISTORY AND MILITARY THEORY TO FUTURE AIRLAND OPERATIONS

To analyze correctly the present and explore future, one must be well versed in the lessons of the past.⁴⁻¹

Since the Second World War, two significant examples serve to support the Army's AirLand Operations future employment of combined arms brigades as the primary fighting unit to achieve operational resolution. First, OPERATION CRUSADER provides excellent material for operational study of combined arms actions where specially tailored brigades were employed. These combined arms units were employed in a manner that had recently been adopted in lieu of divisional employment by the Americans, French, and British because they provided many advantages in quickness and mobility.⁴⁻² Secondly, I will cite the Falklands Campaign as an example of independent brigade employment that produced operational resolution based on strategic guidance from Great Britain to the operational commander in the field.

The theorists, Fuller, Triandafillov, Tukhachevskiy, and Guderian, also advocated combined arms brigade operations. Therefore, to lend credence to the paper's thesis, their theories are appropriately integrated into the historical text. For example, J.F.C. Fuller makes a case for the operational employment of armored reconnaissance, tanks, artillery, and aircraft working as a mobile strike force in a nonlinear environment. Triandafillov similarly studied operational employment from a contemporary technological and organizational perspective in an attempt to predict the future of war. Additionally, Triandafillov provided the genesis for Soviet operational art predicated on the use of armored tanks, artillery, and aviation; he was also the first to ask whether small motorized units or million-man armies were more appropriate.⁴⁻³

Also central to the paper's thesis, Tukhachevskiy posited that command and control for combined arms units began at the brigade level.⁴⁻⁴ This method of C2 and organization for combat can be seen in both historical examples in this chapter and is also in Guderian's observation that foresaw cooperation among all combat arms as the key to decisive battle.⁴⁻⁵ The inability of opposing forces in the First World War to achieve decisive battle through the cooperative speed of tanks and artillery served as the impetus for J.F.C.

Fuller's thoughts on armored mechanized warfare. Fuller expressed the concern that Since WWI tanks were so closely tied down to the pace of the infantry, few mobility lessons could be applied to future battle. Field Marshal Erwin Rommel was a mobility pioneer who would put to test Fuller's theories during OPERATION CRUSADER that once and for all debunked the case for static warfare.

OPERATION CRUSADER

Operation CRUSADER was fought in the desert terrain of eastern Libya and Egypt between the British and the German-Italian Axis powers. The Western Desert was, in the words of German General von Ravenstein, "a tactician's paradise and a quartermaster's hell."⁴⁻⁶ Stretching some 1,400 miles from Tripoli to Alexandria, campaigning in this theater necessarily took the form of a dash from one point of resupply to the next in the hope of catching the enemy bereft of water, fuel, ammunition, food, and reinforcements to insure his destruction.⁴⁻⁷ Geographical limitations produced nonlinear conditions which impeded the flow of logistics. Exacerbating the resupply problem, the battles mostly took place off the roads away from the lines of communication. Because of terrain and logistics limitations, brigade-sized units and below were most easily employed.

Although Rommel's operational exploits were complemented by the geography of northern Africa, his ability to support logistically these operations was severely curtailed because of inadequate lines of communication. The few existing road networks were primitive, and often ended before timely linkups could be achieved with supporting forces. This drove Rommel to rely on the autonomous capability of his forward brigades. Further worsening the situation, occasionally supply vehicles would get lost because of rapidly changing desert conditions, or ambushes by marauding British stay-behind units. This placed the onus even more on the forward combined arms brigades to support themselves as best as possible under the austere conditions.

Despite the fact that CRUSADER occurred 50 years ago, the battle offers many operational insights into high-intensity and nonlinear operations.⁴⁻⁸ Rommel's employment combination of tanks and mobile artillery is reminiscent

of Triandafillov's 'two stages' and Tukhachevskiy's switch from a broad front to deep battle,⁴⁻⁹ and is in keeping the Army's present position that the brigade is the primary fighting element. Additionally, Rommel provided an all-arms synergism by combining the power of infantry, artillery, and armor acting in concert.⁴⁻¹⁰ Rommel also adroitly took advantage of the technological advances of tank warfare which increased even further the depths into which he could exploit the enemy's rear.

OPERATION CRUSADER was initiated by Rommel with a spectacular advance at El-Agheila on 1 November 1941, and ended coincidentally at the same place on 17 January 1942. Rommel's colossal achievements were tarnished by the battles' equally inauspicious conclusion brought about by logistics exhaustion after two and a half months of campaigning.

Despite Rommel's setback, Marshal Mikhail Tukhachevskiy's deep battle philosophy was positively reflected in Rommel's generalship. Considered the father of deep battle and the outstanding operational commander of the Russian Civil War, Tukhachevskiy was also considered to be one of the great captains.⁴⁻¹¹ He organized and modernized the Soviet Red Army in the 1930s and postulated that deep battle excursions had great potential for decisive operational destruction of the enemy. Tukhachevskiy also fostered the maneuver of forces at decisive points for breakthroughs into the enemy's depths.⁴⁻¹² This technique was well understood by Rommel who sought to split British Forces into fragments across the desert in an effort to disrupt their tempo.⁴⁻¹³ Rommel's excursions into the British rear with combined arms units is closely analogous to Tukhachevskiy's premise which espoused deep advances to disrupt the enemy's rear.

Still today, American warfighting philosophy captured in FM 100-5, Operations, closely mirrors Tukhachevskiy's call to disrupt the opposing commander's freedom of action, coherence, and tempo which he regarded as the principal targets in deep operations.⁴⁻¹⁴ Also central to Tukhachevskiy's theory was the destruction in the enemy's rear of his capability to wage further war; if accomplished, this would result in the decisive and irreparable defeat of the enemy.⁴⁻¹⁵

OPERATION CRUSADER was conducted over a 5,000 square mile area, and unfolded in four phases. The battle took on nonlinear characteristics from the beginning which provided ideal conditions for the employment of combined arms brigades. Prior to Phase I, adverse weather grounded the Axis aircraft depriving the 'panzergruppe' intelligence staff of a critical look at the battlefield for several days prior to 16 November on the eve the next night, the British Eighth Army was ready and in position. The Axis forces were increasingly aware that an attack was imminent and were forced to give up their assault on Tobruk to ready themselves for the British offensive.

Phase II began in the predawn of 18 November when the British Eighth Army moved out in force.⁴⁻¹⁶ The 30th Corps entered the battle preceded by three armored brigades in a sweep south of the Axis frontier fortifications. Only German reconnaissance units dropped back in an attempt to bar their way, so the armored confrontation desired by the British did not take place.

Somewhat puzzled by the lack of enemy reaction, Brigadier General W.H.E. Gott, commander of the 7th Armored Division, issued "fateful orders for the next day."⁴⁻¹⁷ At this juncture in the battle, the powerful 7th Armored Division, which was now well inside Libya, was dispatched in brigade-sized units to seek out multiple objectives in independent brigade actions. The 22d Armored Brigade moved west to attack the Italian 'Ariete' Division near Bir el Gubi; 7th Armored Brigade and the divisional support group would advance northwest to the Sidi Rezegh airfield near Tobruk; and the 4th Armored Brigade remained back to act as a link between 7th Armored Division and the rest of 13th Corps.⁴⁻¹⁸

In response, Rommel worked to off-set the advantage sought by Gott by concentrating his forces as the British were scattering their armor. Rommel was then able to maneuver two armor regiments of the two armor divisions around the battlefield to "achieve decisive effects."⁴⁻¹⁹ General Messervy of 7th Armored Division wrote that Rommel's combined arms employment of armor, antitank guns and mechanized formations oriented on the *schwerpunkt* was much better than their rather dispersed idea of fighting. Contrary to Rommel, the British commanders were given area, not functional, commands

which kept fluctuating and precluded them from ever fighting with continuity. Instead, they were always getting piecemealed and variously trained brigades at the front that, unlike their German counterparts, were unaccustomed to combined arms operations.⁴⁻²⁰

Conversely, the German combined arms brigades were much better trained and able to move quickly about the battlefield. They created confusion among the British while lending "freedom of movement and harmony" to their own advancement⁴⁻²¹ in a series of engagements that defeated the British 4th Armored Brigade. Control measures to support quick employment of the combined arms brigades were "apparently not too much of a problem."⁴⁻²² The German mission was to seek out the enemy and initiate the battle while supporting friendly units were summoned to exploit success. Quick thinking and agility were critical to avoid confusion when feeding newly arrived tank formations into the sand-and-smoke clogged engagement areas.

In the confusion brought about by obscuring and nonlinear fighting, brigade level engagements often took on the "complexion of naval battles with troops fed in and out of the battle with little regard for formal control measures."⁴⁻²³ Following an engagement, the winning unit usually found itself alone on the desert, surrounded by both sides' wrecked vehicles. This was a particularly vulnerable time for both sides when open flanks caused great concern for a withdrawing enemy that lurked nearby. Paradoxically, this respite was also a welcomed opportunity to refit hurriedly before another engagement suddenly ensued.

The thought of Germans just a few miles away was sobering to the British. The Germans were unquestionably more nimble and dynamic on the battlefield, and their capability for operational maneuver was generally superior to the British. However, the Germans were gradually ground down by a determined British foe who, although they demonstrated cruder battlefield techniques, committed more resources to the theater. The German's agile and aggressive nonlinear maneuver resulted in significant attrition against an overly extended opponent, but to no avail from an operational perspective as a preponderance of British resources eventually wore down a qualitatively superior force.⁴⁻²⁴

An event critical to the battle occurred when the British 7th Armored Brigade overran Sidi Rezegh airfield only 20 Miles from Tobruk. Rommel, realizing that the British were about to flank the Italian infantry besieging Tobruk, ordered both panzer divisions to concentrate at Sidi Rezegh.⁴⁻²⁴ The British 70th Division heightened the urgency by fighting from within the Tobruk perimeter toward Sidi Rezegh.

This set the conditions for a raging battle in the vicinity of the Sidi Rezegh airfield. The British 7th Armored Brigade suffered heavy damage and was delayed by the two panzer divisions' rear guards in the initial advance. The 4th and 22d Armored Brigades were held up when attempting to enter the fight from the south. Harassed by the 15th and 21st Panzer Division, the 4th and 22d British Armored Brigades were desperately trying to link up with their pinned-down compatriots at Sidi Rezegh airfield.

Elements of the 'Afrika Korps' were eventually able to reduce the 7th Armored Brigade to only 10 running tanks and the 22d Armored Brigade to only 34.⁴⁻²⁶ This resulted in the surrounding of the 5th South African Infantry Brigade which was left alone without mutually supporting armor. General Cruewell, 'DAK's' commander, launched virtually everything he had in an Afrika Korps version of a mechanized "banzai charge" against the besieged South Africans who despite their desperate resistance were overrun and wiped out.⁴⁻²⁷

Here, the effects of simultaneity can be seen resulting from Rommel's employment of combined arms elements in multiple directions against dispersed British armored formations. Although Rommel had no earlier experience in desert warfare, he understood mobile combined arms. To him, the proper use of armor was not to fight armor, but to discover weak points in the enemy's defense and then attack soft-skinned targets in his rear.⁴⁻²⁸ The Germans were becoming more accustomed to fighting as a dispersed force made up of separate brigades. Never fighting as divisions, they would instead coalesce about the 'schwerpunkt' in combined arms brigade-sized formations.⁴⁻²⁹

In Phase III, Rommel felt that heavy losses suffered by the British 7th Armored Division had eliminated it as a viable force. This appeared to him to

be the ideal time to drive the British back into Egypt, thus he decided to bypass what he believed to be an irretrievably beaten force. Rommel failed to understand that though the British armor had been dealt a heavy blow, there were few prisoners from the armored units. That should have been an indication to Rommel that the British could refit to fight again. Against the advice of General Cruewell and other members of his staff, Rommel was determined to press on to his famous "Dash to the Wire" counterstroke against the New Zealander Division even though he knew that his Deutsche Armored Korps (DAK) had only 70 to 80 operational tanks remaining.⁴⁻³¹ The dash to the frontier of two panzer divisions proved a Pyrrhic victory. By 27 November, both panzer divisions had to return toward Tobruk to head off yet another crisis. Ominously, Cruewell's predictions came to fruition as the battered British armored units, now well south of Sidi Rezegh and also behind DAK, received new tanks brought forward from Egypt.⁴⁻³²

Somewhat the British were able to keep their lines open while the Germans were well overextended on their LOCs and had fewer supplies coming into the ports. The battle had become so chaotic "that by late afternoon, huge supply convoys might be moving through an area that had witnessed a massive armor clash in the early morning."⁴⁻³³ Credit must be given to Rommel's opponent, the British Middle East Commander in Chief, General Sir Claude Auchinleck whose decision to continue the battle required great courage. He averted virtual panic in the Eighth Army Headquarters and refused to entertain a proposed retreat after the pounding meted out by the Germans at Sidi Rezegh. Auchinleck, noting the dissolution of the Deutsche Afrika Korps (the critical element in 'panzergruppe'), demonstrated great courage and stamina to stand as Rommel's forces culminated.⁴⁻³⁴

Rommel's situation during Phase IV (3-35 December) was now actually desperate due to logistical exhaustion despite his string of apparent victories. The British were interdicting supplies unmercifully with Malta-based aerial bombing at the port of Benghazi. The incontrovertible evidence of Rommel's critical supply shortages and major end items, was reflected by the fact that DAK now had only 60 operational tanks remaining, while the Italian garrison were just about at the end of their rope at Tobruk.⁴⁻³⁵

After Axis aerial reconnaissance detected the arrival of a fresh South African Division, Rommel decided to break off the fight by orchestrating a pull out to the west before British armor could get astride the lines of retreat.⁴⁻³⁶ By 25 December, 'panzergruppe' was all the way back at El-Agheila, where Rommel had started his spectacular advance in March 1941. The Axis frontier garrisons held out until 17 January 1942 when nearly 14,000 prisoners were taken by the British forces.

CRUSADER was a truly remarkable battle that provided many useful insights into high-intensity, nonlinear combat. B.H. Liddell-Hart characterizes CRUSADER as one of the most outstanding performances in military history, and as an objective lesson in "the subtlety and variety" of the indirect approach.⁴⁻³⁷ Although CRUSADER resulted ultimately in Rommel's defeat, there are many lessons for future mobile combined arms warfare. In Rommel's opinion, the orthodox British doctrine of attack placed too much emphasis on the attainment of certain linear objectives; he preferred Liddell Hart's concept of the *schwerpunkt*, or drive without limits along a given axis.⁴⁻³⁸

For Rommel to seek opportunities through weak seams into the enemy's depths represents sound thinking on his part. Guderian said that great generals have always aimed at decisive, mobile warfare⁴⁻³⁹ However, Clausewitz also adred that the soldier-statesman, one who could translate strategy to tactics, comprised true genius. Measured by Guderian's statement, Rommel was a success; by Clausewitz' he was a failure because he lost sight of the operational linkage between legitimate strategy and tactics. This was more precisely Rommel's failure in that he neglected to insure that his plan was strategically and logistically feasible from the outset. Rommel's flawed operational thinking contorted calculated risks into unresourced gambles. Moreover, he failed to grasp that his own center of gravity lay as much in his inability to sustain his armed force as it did in its employment.

Acknowledging his shortcomings as a multi-dimensional warfighter, Rommel displayed glimmers of tactical brilliance, if not operational vision. He created the conditions for freedom of action by wresting the initiative from the British on numerous occasions. By creating opportunities at the lowest possible level, he was able to exploit the advantages of nonlinear operational maneuver.

Unfortunately, these successes were tarnished by his impulsive desire for speed over methodical advance.⁴⁻⁴⁰ Ultimately, Rommel failed to recognize the fragile relationship between strategy and tactics, and neglected to tie operational logistics considerations to his daring combined arms exploits.

Rommel's combined arms brigade employment methods closely reflect our current AirLand Operations concepts which profess power projection into the enemy's depths. Our current doctrine and future concepts still validate Rommel's proclivity for tempo and freedom of action, and serve as an important reminder to us of the inextricable relationship between displaced combined arms maneuver and logistics. This timeless lesson was again revalidated 40 years later in the Falkland Islands.

THE FALKLAND ISLANDS CAMPAIGN

The Falkland Islands campaign is a more contemporary example of the operational employment in a limited war of independent brigades which ultimately resulted in the "resounding defeat of Argentina"⁴⁻⁴¹ and a strategic victory for the British. The British fought the war on short notice with an army that had to deploy strategically to an austere theater under 'in extremis' conditions.

Fog, friction, and fortune (good and bad) all played a part in the British victory to the extent that the outcome hung in the balance for some time before the Argentinians finally capitulated at Port Stanley. The Falklands War was an example of a highly technical joint and combined campaign that provided a window to the future of US military endeavors of the 1980s. The Falklands War also provides insight into the relationship among politics, strategy, and the evolution of operational warfare. This campaign comprised multiple sequential sea, air, and land operations that finally caused the Argentinians to culminate at their center of gravity, Port Stanley, East Falkland Island.

Throughout this campaign, both sides mistook the circumstances for being something other than what they were causing both to incur unnecessary and painful losses. Clausewitz argued against turning a war into "something that is alien to its nature."⁴⁻⁴² Even before escalation to war, both the British and Argentinians failed to gauge accurately political reactions to each other.

From an Argentinian point of view, war could have avoided altogether had they correctly assessed Britain's resounding will to retain the Falklands. Conversely, the British failed to develop a coherent military strategy beyond deployment, and neglected to plan measures to force their way onto the land where final resolution could be attained. In the struggle to produce a clear cut policy objectives for victory, politicians dominated the the operational employment of forces which was a phenomena that Clausewitz also cautioned commanders to guard against.

The objective in the Falkland Islands War was politically limited merely to restore British sovereignty to prevent further erosion of public confidence at home. On the other hand, the Argentinian military Junta was motivated by the need for a foreign adventure to help stifle internal dissent and win support for their failing regime.⁴⁻⁴³ Hence, they opted for a military invasion of the Falkland Islands citing a territorial claim dating to the 1830s although no Argentinians presently inhabited the islands. Mistakenly, Argentina never thought that Britain would respond militarily. They expected simple protests, but fully expected eventual diplomatic acquiescence to their military fait accompli. Consequently, concerted military action for a defense of the Malvinas (as the islands were known to the Argentinians) was never effectively done, nor did their commanders plan for contingencies or future operations; they narrowed their focus on the imminent battle.⁴⁻⁴⁴

The British military expedition to retake the Falklands was mounted with tremendous speed in a political move to maintain public support from the outset and to avoid the 'Vietnam syndrome' on the home front.⁴⁻⁴⁵ Military success had to be achieved before the television cameras could show otherwise. Thus real-time reports served to cement critical support for the war as long as ultimate success could be anticipated. Here, the observation can be made that the relationship between operational success and political support was very strong.

Britain responded rapidly to the crisis and fought the entire war by employing units of brigade size and strength. The British 3d Para of the 42 Marine Commando Brigade landed at San Carlos on 21 May 1982 to initiate the ground effort to win back the Falklands.⁴⁻⁴⁶ Four days after securing the port

of San Carlos, the marines supported by the 3rd Commando Brigade continued their onslaught against light resistance to the main Argentine stronghold at Port Stanley.⁴⁻⁴⁷ The brigade actions went almost totally logistically unsupported due to the loss of the HMS CONVEYOR and her associated helicopters while the marines forged ahead on foot.⁴⁻⁴⁸ This example illustrates the flexibility of the British and their capability to overcome the friction of war as unforeseen losses could have severely hurt a less pliant organization. Despite these arduous conditions, the British were able to sustain their independently employed brigade efforts sometimes on mere courage alone.⁴⁻⁴⁹

The British scheme called for a main effort attack on a northern axis to Port Stanley, while a supporting attack would be executed along a southern axis to objectives at Darwin and Goose Green; both axes joined at Port Stanley.⁴⁻⁵⁰ The action between 29 May and 3 June was supported by two battalions of the 2d Parachute Regiment and 45th Commando Regiment at Goose Green and Douglas. Their objectives were on the north side of the island and included Teal Inlet.⁴⁻⁵¹ After the 45th was reinforced by the 42d Commando Regiment, the 3d Brigade launched its initial attack on Port Stanley on 11 June followed up by a final attack which was reinforced by 5th Brigade on 13 June.⁴⁻⁵²

Before the center of gravity at Port Stanley could be breached, the employment of the 3d Commando Brigade at Darwin and Goose Green set the conditions for overall victory and produced one of the most decisive actions of the war.⁴⁻⁵³ At the time of the attack, Goose Green had no apparent operational value, yet a British victory was desperately required to placate the politicians and public at home. Sensing that an operational window of opportunity existed, the strategic decision was made to establish a foothold on the island. The results of this action had operational and strategic overtones, although this isolated and nonlinear engagement was conducted at the brigade level.

The war could have been lost strategically save for their capability to deploy rapidly independent brigades to accomplish operational results. Britain could have also been stalemated or defeated if the sea lines of communication were cut by the Argentines or if their ships were sunk, especially those

carrying large numbers of troops or supplies. More importantly, Britain could not decisively win the war strategically or operationally if the Argentinian garrison at Port Stanley was not defeated.

The first indication that the British might operationally accomplish its mission to dominate the land occurred when stalemate was averted by the quality fighting of the 2d Paras of the 3d Commando Brigade At Goose Green. The Argentinians had fought a tenacious air campaign holding the British at bay for four days, when The British government intervened to order the invasion of East Falkland to establish a beachhead. 450 outnumbered men, led first by Lieutenant Colonel H. Jones then by Major Chris Keeble following LTC Jones' heroic death, accomplished an extraordinary victory that turned the tide in favor of the British. Conceived as a major diversionary raid, the battle at Goose Green ended as one of the decisive actions of the war and signalled to the Argentinians a devastating demonstration of Britains's resolve whatever the cost.⁴⁻⁵⁴

The land invasion of East Falkland sounded the death knell for the Argentinians beginning with the surrender of Goose Green which had cascading effects for British morale. Ostensibly, it is only after Goose Green and Darwin that new unity was bred in the British war cabinet. The London government's fears allayed, the initiative now clearly rested with the operational commanders.⁴⁻⁵⁶ For it was now definitively recognized at home that no matter what the course of the air and sea sub-campaigns had been over a frustrating four days, physical possession of the islands could now be claimed by those who dominated the land.⁴⁻⁵⁷ To physically dominate the land, the London government was necessarily compelled to operationally employ independent brigades to make the difference in victory.

The entire Falklands war was conducted at the brigade level and below. It is here that evidence of operational art can clearly be seen as the theater commanders, Brigadier Thompson and later Major General Moore, provided the operational interface between the strategic political direction from London and the attainment of military objectives on the ground. Like AirLand Operations today, power projection for the US is anticipated to be conducted by brigades as the basic building block for corps operational maneuver while other combat,

combat support and CSS will be added by battalion and company organic augmentation. 4-58

CHAPTER 5. ANALYSIS

If we fully accept that the future portends victory on the nonlinear battlefield, then we must address ways of massing fires followed by decisive maneuver to best accomplish that goal. Operational fires are envisaged in AirLand Operations as the precursor to ground maneuver against a disrupted or decimated enemy. In the absence of operational fires, a war of attrition could result. Since this is no longer acceptable militarily or politically, the establishment of conditions for decisive maneuver becomes imperative before actual maneuver commences in earnest. Consequently, we must exploit, as Rommel did in OPERATION CRUSADER, the firepower and maneuverability of the combined arms brigade by inflicting as much damage as possible on the enemy before ground maneuver commences. Once the ground battle has begun, we must be able to collect intelligence to support fires and maneuver, and sustain until the enemy is defeated.

To fight across the operational continuum, maneuver forces must be highly agile and must have sufficient capability at the point of commitment, yet have sufficient endurance to remain combat effective throughout the prescribed period of their combat cycle. Tukhachevskiy postulated in 1936 that armored combat would encompass battle and enable penetrations of unprecedented operational depth and tempo. In 1938, he advocated the use of the brigade as the basic unit for maneuver. Insuring that brigades are formed as combined arms task forces enhances the balance between endurance and agility which provide the opportunity to wage effective battle, yet be robust enough execute operational maneuver for extended periods. To demonstrate the viability of this premise, the six Operational Operating Systems are cited to support the case for combined arms brigades under corps auspices in AirLand Operations.

MOVEMENT AND MANEUVER

Operational Movement and Maneuver involves the disposition of forces "to create a decisive impact on the conduct of a campaign or major operation by either securing the operational advantages of position before battle is joined

or exploiting tactical success to achieve operational or strategic results."⁵⁻¹ Like the Falkland Islands Campaign, successful operational results with fewer forces can be expected as future force structure will be limited in AirLand Operations, at least in the incipient phases of a conflict. The forces must be versatile, deployable, lethal, and expansible to meet the threat of global war and to hedge against future uncertainties.⁵⁻² The Army in most scenarios will have no choice but to be prepared to fight using brigade-sized elements⁵⁻³ in a highly mobile, nonlinear manner,⁵⁻⁴ because brigades are the largest units that can be quickly deployed, yet still have the requisite fire power and logistics to achieve favorable resolution.

Operational results will be produced through the focused lens at corps which will remain as a tailored, flexible organization structured around brigades as its building blocks.⁵⁻⁵ As the corps' primary fighting force, the combined arms brigade will provide agility and fires to render the enemy incapable of effectively deploying or maneuvering against us, while we continue to operate within the enemy's decision cycle.⁵⁻⁶ The principal intent should be to move so quickly and decisively that the enemy is paralyzed by surprise as advocated by Tukhachevskiy. The rationale for this is provided by the nonlinear environment over extended terrain that drives self-contained fighting. Within this nonlinear environment, the brigade is not expected to handle an increased frontage because it is oriented on massing at a decisive point in space.⁵⁻⁷

Units coalesce from dispersal areas to accomplish massing. Once enroute from the dispersal areas, self-contained combined arms brigades will be augmented by high-tech weapons and organic logistics in the form of forward support battalions (FSBs) to produce successful resolution in shorter and more decisive wars. Our materiel supremacy should not be relied upon gratuitously, but always be used in combination with "brute force, cunning and guile"⁵⁻⁸ to maximize results. William Lind put it another way when he likened maneuver warfare to military judo as a way of fighting smarter than an opponent that you may not otherwise be able to overpower with brute strength.⁵⁻⁹

Clausewitz would also agree with Lind's characterization: "The first rule, therefore, should be: put the largest possible army into the field."⁵⁻¹⁰ The U.S. Army agrees with Clausewitz in its premier capstone manual, Field

Manual 100-5, Operations, which states that "mass, as a principle of war, requires the Army to concentrate combat power at the decisive place and time."⁵⁻¹¹ The capability to mass is as important now as it was in Clausewitz's time. The strength and skill of the army must be manifested at the decisive point which implies that overall gross number superiority is not required for success. The number of forces overall is not nearly as important as the correlation of forces precisely at the point of attack which is critically fundamental to AirLand Operations precepts.

During the battle, a number of combat multipliers will be combined for a synergistic effect. As in DESERT STORM, attack helicopters will first contribute to the long-range battle in concert with electronic warfare (EW), battlefield air interdiction (BAI), and joint suppression of enemy air defense (JSEAD). This joint effort will be augmented by RISTA (reconnaissance, intelligence, surveillance, and target acquisition) assets, the Army Tactical Missile System (ATCMS), corps electronic warfare (EW) assets, and TACIT RAINBOW. Additionally, the attack will commence only after deception has been considered and air superiority has been achieved. The corps could also supplement the brigades with unmanned aerial vehicles (UAV), and electronic surveillance.

Even with corps augmentation it is important to understand that, depending on the situation and outcome (branches and sequels), the brigade can be depleted rather quickly as an effective fighting force. Hence, it is even more important that the combined arms brigades be formed to operate as a unit that can withstand the rigors of multiple engagements. The World War Two German General Staff in their wargaming would ask: "What happens after we take the hill? Merely possessing the terrain doesn't matter; what matters is to shatter the enemy"⁵⁻¹² then refit for follow-on missions. AirLand Operations is force, not terrain oriented, and also looks beyond the immediacy of the situation toward whatever exigencies may occur after consolidation on a particular objective.

The essence of AirLand Operations implies the necessity for flexible, self-contained combined arms operations over the greater depth and breadth of the nonlinear battlefield. More emphasis will be placed on offensive and

continuous operations with increased security, command and control, sustainment and force agility. Throughout our doctrinal and training literature, two themes persist: we must fight in combined arms formations and we must train as we are going to fight.

Brigadier General Wesley Clarks' frank analysis recounts the experiences of brigade task forces that trained and fought in our most sophisticated and realistic training arena, the National Training Center (NTC).⁵⁻¹³ Clark observed at the NTC that one brigade task force holding the shoulder of a breach could facilitate the passage of several other task forces organized with artillery and combat trains.⁵⁻¹⁴ This brigade-level operation at the NTC replicates what is expected on the plains of Central Europe, which is to establish a penetration that would open the door for other brigades to breach and disrupt the enemy's rear. This particular penetration achieved 6:1 antiarmor ratios at the point of penetration using surprise, speed, flexibility, and audacity - characteristics of offensive operations extolled in US Army Field Manual 100-5, Operations.⁵⁻¹⁵

Exploiting a penetration into the enemy's rear or flank to avoid his strength gains the advantage of attacking our adversary at a place of our choosing causing him to falter in our advance. The challenge then becomes balancing maneuver with fires in a concentrated effort to destroy him. This results in an accelerated pace of operations aimed at the quick destruction whether conducting the attack, defense or counterstroke. As in all maneuver, the goal should be to secure advantage of position, mass overwhelming strength against enemy weakness, and repeat the process faster than the enemy can react.⁵⁻¹⁶ Gaining this advantage can best be achieved with the speed, flexibility and agility of combined arms brigades to produce operational effects. The maneuver advantage is best gained when preceded and accompanied by operational fires as occurred in the Falklands, and in Operations URGENT FURY, JUST CAUSE, and DESERT STORM.

FIRES

The second OOS, Operational Fires, consists of the application of firepower to achieve a decisive impact affecting the conduct of a campaign or major operation. Operational fires in AirLand Operations are by their nature joint or

combined activities. As brigades are the hinge pin maneuver unit in AirLand Operations, they must be capable of attacking enemy formations while rapidly moving. To accomplish this speedy attack, their accompanying fires must be equally capable of moving along side of their combined arms team counterparts.⁵⁻¹⁷ Although fires are a separate component of the operational scheme, they are at least the coequal of operational movement and maneuver in AirLand Operations.⁵⁻¹⁸ Operational Maneuver and Movement and Operational Fires are not necessarily dependent on one another, but one can be affected by the other. When preceding maneuver, fires must be closely coordinated to complement, not impede movement.

Target acquisition of lucrative enemy masses is still accomplishable in nonlinear AirLand Operations. Guderian once thought that mechanical aid to fire power almost caused mobility to cease entirely. However, with the advent of mechanization, mobility regained its full importance on the battlefield.⁵⁻¹⁹ Since artillery has become nearly as mobile as its maneuver counterparts, the inseparable relationship of fire to maneuver is no longer threatened. By shaping the battlefield with fires, the enemy can be incapacitated or destroyed, possibly even before maneuver forces arrive. At this point in the battle, combined arms decisive maneuver forces can be injected to complete the mission begun by fires.

Future battle will not depend on the maneuver battle to the extent that it has in the past. The outcome will depend on a combination of fires using Army aviation, corps artillery, and supporting air forces to destroy - not just "prep" - enemy forces to a level that allows for decisive maneuver in the aftermath.⁵⁻²⁰ The employment of these combined arms will include new intelligence and electronic warfare systems for target acquisition, and new manned and unmanned weapons.

The fires phase must be fought by combined arms task forces. These fires must be led by commanders in a position on the battlefield to influence the fight directly. The commanders should normally be aviation brigade and armored cavalry regiment (ACR) commanders who are given a mission to defeat an enemy force within an assigned area of operations. To assist in the accomplishment of the mission, these combined arms commanders are

augmented by corps with the requisite combat power for mission accomplishment.⁵⁻²¹ The inference can be drawn that combined arms brigades are incapable of routinely accomplishing operational fires because of their own organic limitations. Resultantly, based on the Operational Fires criterion, combined arms brigades must rely on the parent unit, and in some cases echelons above corps (EAC) augmentation to effect operational fires. Enhanced technology allows for operational orchestration at brigade level whether the actual assets are organic or not. In all cases, as the orchestration for operational employment takes place, the entire force must be protected against interdiction.

PROTECTION

To insure that maneuver and fire assets are available when needed, Operational Protection measures conserve their fighting potential so they can be applied at the decisive time and place. Operational Protection includes actions taken to counter the enemy's firepower and maneuver by making soldiers, systems, and operational formations difficult to locate, strike and destroy.⁵⁻²² Operational Protection also entails the provision of operational air defense, force protection and dispersal, security, deception and assessments of the effects of deception.

Each combined arms brigade must be task organized with each of these functional area elements. Dispersion in AirLand Operations has an inherent force protection value. However, the natural protection afforded by dispersion loses value as the force coalesces into a lethal mass at the decisive point. At the time the force masses is precisely when they are most vulnerable to interdiction. The force must be protected in particular against the use of chemical munitions that can slow the operational tempo, compartmentalize the terrain, and cause an inordinate amount of casualties.⁵⁻²³ The problem of operational force protection is exacerbated by larger, nonlinear areas and high-tempo operations. Scarce assets must be task organized into each combined arms brigade to minimize the hazard. Avoidance is the best solution which further burdens the intelligence communities' responsibility to insure accuracy of information regarding threat usage of chemical fires. In the foreseeable AirLand Operations environment, only tanks (M1) and mechanized

infantry and cavalry (M2/3) will be capable of collective chemical protection. Aviation and artillery units must still operate in MOPP 4, or insure that they avoid contaminated areas altogether.

Like chemical fires, smoke has a significant role in shaping the battlefield, masking movement, and degrading the detection capability of the enemy. "The Comprehensive Smoke Study" shows that projected, self-defense, and large area visual smoke, will decrease the enemy's long-range antiarmor effectiveness by up to forty percent. "The Comprehensive Smoke Study" also shows that the effectiveness of a maneuver unit can be increased by 30% to 75%.⁵⁻²⁴ In this regard, combined arms brigades can take advantage of obscurants significantly better than the division because less obscurant is required to hide them. Conversely, the brigade is much more likely to be able to avoid obscured areas because of their added agility. Obscuration on the AirLand Operations battlefield will still be a significant factor particularly considering the use of bispectral and multispectral obscurants that can defeat sensors operating in the visible, infrared (thermal) and millimeter wave spectrums. Obscurants of this nature can significantly degrade smart munitions and RISTA.⁵⁻²⁵

Protection also entails breaching operations to preserve operational tempo at the point of penetration. Effective massing of combat power against only a portion of the enemy defense on a narrow frontage, can lead to a significant gap in the enemy's defenses. Protecting the force as it masses for breaching operations is critical to the success of the mission. Organic engineer assets will give the combined arms brigade the capability to protect itself at the operational level. Unlike fires, corps augmentation to the brigades for force protection should not be required under normal conditions. Like maneuver and fires, force protection efforts must be adequately controlled for optimal results.

COMMAND AND CONTROL

Operational Command and Control OOS comprises the exercise of authority and direction over assigned operational forces in the accomplishment of the mission. Command and Control functions are performed through an arrangement of personnel, equipment, facilities, and procedures employed by a

commander in planning, directing, coordinating, and controlling forces and operations.⁵⁻²⁶ Operational Command and Control encompasses communications, situational assessments, determination of operational actions, direction of subordinate operational forces, and the employment of command, control, and intelligence countermeasures (C3CM).

The organizational structure of our forces is the most rudimentary step towards adequate C2 and synchronization. A standard ground maneuver brigade organized with combat, combat support, and combat service support enhances cohesion and promotes C2. Although the division is technically the lowest level at which combat, CS, and CSS are formally mixed, Training and Doctrine Command (TRADOC) AirLand Operations analysis suggests that this must be done at a lower level and that combined arms brigades are required in AirLand Operations.⁵⁻²⁷

The proliferation of state-of-the-art communications below division level may obviate the critical need for the division as an intermediate headquarters, at least in the form we once knew it. The speedy flow of critical information transmitted directly to brigade begs immediate action which may cause the division headquarters to become added baggage in the way of execution between corps and brigade. As the corps can now more easily directly manage to the brigade level, the commander's uncertainty of subordinate commander and staff actions will be reduced and the activities of the brigade are likely to reflect unity of purpose.⁵⁻²⁸

Consequently, in a smaller, more lethal and more technologically capable Army, a balanced force structure with appropriate C2 becomes imperative to deliver the best equipped and combat-ready Army to the field. The combined arms brigade will play a significant role in achieving this balance, and if configured properly to sustain itself, it can achieve operational results. In addition, the division will not be instrumental in the corps commander's determination of decisive points and deep battle. Nor will divisions fight deep and rear fights in the future; this will be the also the responsibility of the corps.⁵⁻²⁹

Unburdened by rear and deep responsibilities, the division MAIN need not displace until the conclusion of the maneuver phase.⁵⁻³⁰ Its focus will be on

configuring for the immediate fight in order to best tailor, add or delete brigades to accomplish the mission on behalf of the corps. Its primary responsibilities will be to control the movement of the division from assembly areas to the area of operations and to coordinate CSS for the reconstitution phase.

On the other hand, the corps has the responsibility to execute the fight. Our execution may never be perfect, but as our execution gets better through leadership and top-notch C3I, we will continue realize an exponential edge that our enemy will have an extraordinarily hard time dealing with. Our trained leaders coupled with state-of-the-art C3I further enhance our edge toward victory and allow the corps commander to see his zone of operations better than ever before.⁵⁻³¹ These factors also instantaneously give the commander the opportunity to shift brigade-sized units without the formerly necessary delay through division. Moreover, divisions with three like-brigades, would be forced to take additional time - which may not be available - to write, brief, rehearse, and synchronize another order based on the parent corps' order. This step could be entirely eliminated if the corps commander is given the flexibility to disseminate directly to combined arms brigades in the manner he determines will best suit the conditions.

This is all possible now because of technical advancements which have increased the span of control capability at the corps level while simultaneously allowing for greater dispersion. The division in its efforts to keep up may become an unnecessary encumbrance that wastes time, and gets in the way of the corps commander⁵⁻³² who is now, more than ever, fully capable of fighting multiple combined arms brigade engagements to produce operational results. The divisions' ability pales by comparison to that of the corps' to interpret, analyze and reroute information. Further, the combat units may have to already be in the maneuver mode by the time division can intervene to influence the action. Hence, the division C2 exercise will become a redundant and moot effort which can only degrade surprise, agility, and lethality at the point of decision, particularly under in extremis conditions.

Further, responsibilities at the division will be significantly reduced from a decentralization and synchronization point of view as span of control becomes

less of a challenge to the corps.⁵⁻³³ The level to which decentralization can be best affected is at the combined arms brigade level where enhanced communications and navigation instruments, both over the horizon and via satellite, will permit the combined arms brigade to receive orders and the latest intelligence data required to exercise at the operational level.

INTELLIGENCE

Operational Intelligence consists of intelligence material which is required for the planning and conduct of campaigns and major operations within a theater or area of operations. At the operational level of war, the joint and combined intelligence system concentrates on the collection, identification, location, and analysis of strategic and operational centers of gravity that if successfully attacked, will achieve the assigned strategic aim.⁵⁻³⁴

Operational Intelligence includes such activities as the collection, preparation, processing, and dissemination of operational intelligence. The goal of Operational Intelligence is to focus combat power on the enemy as quickly as possible. Corps MAIN will be the AirLand Operations center for intelligence reprocessing, fusion and dissemination of the common picture of the battlefield to subordinate forces. This common picture, developed by human, signal, and imagery intelligence systems, aids the corps in its responsibility for adjusting collection priorities for fires, maneuver, and airspace management.⁵⁻³⁵

Time sensitive and target information should go directly to fires and maneuver brigades, and in some case further down to attack units of whatever size (battalion) necessary, particularly if the information is perishable. Early warning information must be disseminated to the appropriate level for target engagement and must be adjudicated inside the enemy's decision cycle.

Toward this goal, RISTA assets provide a degree of near perfect real-time intelligence that was previously unavailable. This information must be tied to trigger points and integrated into the decision support template. Additionally, the nighttime capability to acquire, identify, designate, and engage targets is having a significant impact on the close and deep battle which has been amply demonstrated at our combined arms training centers (CMTCs), and during

OPERATIONS URGENT FURY, JUST CAUSE, and DESERT STORM where deep battle became a function of target location and value in a nonlinear sense.

The independent nature of the missions of the ACR and separate combined arms brigades requires focusing intelligence requirements through direct intelligence and electronic warfare (IEW) links. When the enemy situation is uncertain, the early commitment of maneuver brigades will necessitate final development of the enemy situation on the move. Brigades must be able to adjust plans and react rapidly to exploit an enemy vulnerability. Stable, cohesive units, such as combined arms brigades will enable the corps commander to make rapid task organization changes based on the mission and his intent.⁵⁻³⁶

SUPPORT

Lastly, Operational Support must be applied under all conditions within all of the Operational Operating Systems. Operational Support consists of those logistical and support activities required to sustain the force in campaigns and major operations with a theater of war or area of operations, and extends from the theater of operations sustaining base to the forward combat service support units and facilities organic to major tactical formations.⁵⁻³⁷

The Operational Support OOS includes activities for arming, fixing, manning, fueling, maintaining all operational forces within the theater operations. Added also are civil affairs and evacuation of noncombatants from a theater of operations. The purpose of the AirLand Operations battlefield logistic support system is to provide support throughout the depths of the battlefield.⁵⁻³⁸ Logistics at the operational level encompasses the support of deployed forces on the scale of an Army corps which translates 'wholesale' to 'retail' at the user level.⁵⁻³⁹ "Managing this transition forms the focus of responsive thinking at the operational level,"⁵⁻⁴⁰ which not only provides, but anticipates what the requisite logistics support for nonlinear warfighting will be.

This an extremely challenging facet of high-tempo operations over vast distances which implies that there will be nothing routine about resupply in nonlinear warfare. In fact, new problems will be created for lines of

communication security and movement over extended distances as Rommel experienced to his detriment in OPERATION CRUSADER. To help alleviate these problems, the theater of operations sustaining base located in the communications zone (COMMZ) will link theater support functions to strategic, operational and tactical combat service support. Linkage within the sustaining base most often entails a joint and combined effort varying only slightly with the theater location and maturity.

The changing nature of the theater will require corps based logistics support projected forward to counter enemy ground force threats possibly even ahead of some of the maneuver units. No longer will the logistics infrastructure enjoy the inherent protection provided by echelonment. The ACR followed by other brigade organizations will be deployed well forward across the entire corps area of operations often beyond the limits of secure lines of communication. The significant gaps through potentially uncontrolled or unoccupied terrain will raise the level of vulnerability to support operations.⁵⁻⁴¹ The nonlinear nature of the ground lines of communication will also create a greater demand for support via air lines of communication, and will generally cause serious concerns for transiting engineer, maintenance, construction, and barrier materials. Corps engineers will be needed more than ever to provide mobility and countermobility over a fragile transportation network. Corps air defense artillery will have to be located forward as well to protect ground and aviation forward area refueling and rearming points and forward command posts.

To overcome the challenge of creating highly agile maneuver forces that have sufficient endurance to remain combat effective, each combined arms brigade will be structured with artillery, engineer, air defense artillery, and a forward support battalion (FSB) in direct support. The point of diminishing returns between endurance and agility throughout the combat cycle will be carefully monitored by corps. When the combat effectiveness of a unit begins to wane, it will be extracted and returned to a secured area for reconstitution. The regeneration of brigades will be coordinated by its own FSB and conducted by echelons above corps (EAC), the theater army area command (TAACOM) through its area support groups (ASGs), and host nation support (HNS) as required depending on the theater to augment reconstitution and assist in the

overall logistics situation.⁵⁻⁴² This holistic process provides the corps with the capability to continually employ agile and robust combined arms brigades to produce operational resolution.

Just as the corps becomes the focal point for the conduct of the fight, the corps support command (COSCOM) becomes the focal point for logistics and interfaces with the TAACOM. The COSCOM will support the corps sector on an area basis through 3-5 assigned corps support groups (CSGs), and medical brigade, and an aviation maintenance group. At the brigade level, because the maneuver forces will not always be organic to the same division, the logistics capability of the FSBs will be more robust than the current capability and will be the brigade focal point for reconstitution.⁵⁻⁴³

The force element for reconstitution will usually be at least a brigade and not more than a division at a time. This stage envisions a pre-coordinated and anticipated operation requiring a surge effort by the COSCOM unit normally in support of the division. The planning for reconstitution will be led by the division and initiated near the end of decisive operations planning, based on estimated results and cost. The concept envisions that the responsible/designated corps support group will accumulate, transport, and issue to depleted units the necessary fuel, ammunition, personnel (crews), and major items of equipment. This will be done in coordination with, but not necessarily through, the brigade FSB. The concept is not to deplete or consume the FSB assets, but rather to issue replenishment assets directly to the units, including replenishing FSB stocks consumed during the preparation of and conduct of the decisive operation.⁵⁻⁴⁴

Overall, logistical support for the nonlinear battlefield will be characterized by forward support capable of surging over extended distances. Associated challenges with this are not easily solved and will require a high degree of operational flexibility, imaginative force protection, automated distribution (C3A), and displaced maintenance. Although this "logistics in motion"⁵⁻⁴⁵ approach serves to reduce the burden on the maneuver commander, it obviously stresses the logistics business to new heights.

Just as logistics is a significant factor in operational maneuver, all of warfare encompasses the continuum of functions captured in the Operational

Operating Systems. None of the six systems works in isolation and each must be considered to successfully translate "strategic aims down to the individual soldier."5-46

CHAPTER 6. SUMMARY

CONCLUSIONS. The purpose of this paper was to argue the merits of formalizing what in many respects has already conceptually occurred -- the organization of combined arms brigades under corps aegis to accomplish operational maneuver on the future AirLand Operations battlefield. Our doctrine and organizations should prepare us for all contingencies. As all wars are anomalies, the organization of choice should contain those elements that can best be adapted to ready use under the preponderance of known conditions. That element is the combined arms brigade that consists of a full complement of tailorable combat arms, combat support and combat service support.

As we can see historically from the combined arms brigade employment in OPERATION CRUSADER and independent brigade operations in the Falkland Islands Campaign, combat operations at the brigade level is not an entirely new phenomenon. It is just an idea whose time has once again come based on technological advances that have occurred across the Operational Operating Systems. This employment method has cascading effects that cannot be replicated by our adversaries not only because of our technological edge, but because of our unique capability for strategic air and sea lift to any potential theater in the world.

This proposal is also supportable from a theoretical perspective as the theorists, Fuller, Triandafillov, Tukhachevskiy, and Guderian, also advocated combined arms operations recognizing that the brigade was the basic building block for execution. The rapid employment capability of the United States to introduce to any theater tailored and robust combined arms brigades is an enviable power projection tool that cannot be technically or logistically replicated by our adversaries. In this regard, a compelling case has been made for the employment of the combined arms brigade as it provides the best transition to the AirLand Operations of the future. Additionally, combined arms brigade employment is the most logical and economical application of

massed combat power available now at the disposal of the corps commander when augmented by operational fires and intelligence resources.

The absence of organic operational fires and intelligence capabilities comprises the only limiting factors for autonomous operational combined arms brigades employment. However, it must be noted that the combined arms brigade does have the capability to perform operationally from a command and control stand point; therefore the brigade must be merely augmented with, or have access to, national collection assets and operational fires from the joint or combined community to perform at the operational level. In all other aspects of the Operational Operating Systems, combined arms brigades are fully functional at the operational level across the spectrum of conflict.

The combined arms brigade also provides the most flexible and tailorable application of force under a myriad of conditions. The formulation of these brigades under corps best prepares us for success in our "Future First Battles", and merely formalizes the ad hoc task organizations that have already occurred in battle simulations and in the field to mass the requisite firepower, lethality, and sustained combat power.

IMPLICATIONS. The nation's military strategy has changed -- "the Army's primary mission is now one of power projection."⁶⁻¹ The recent experiences in operations URGENT FURY, JUST CAUSE, and DESERT STORM lend ample evidence that our global responsibilities in the future will transcend the operational continuum.

Technological advances in strategic lift and C2 further provide the corps with an enhanced capability to influence the battlefield through the employment of smaller and self-contained fighting forces. These more easily managed and employed combined arms brigades will comprise the AirLand Operations base for a "disciplined evolution"⁶⁻² toward a strategic power projection Army; an Army that is fully capable of conducting operational maneuver in the roles of warfighting, national assistance and peacetime engagement.⁶⁻³

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